UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,890	03/01/2005	Hanns-Peter Klockner	RBL0119	5310

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/518,890	KLOCKNER, HANNS-PETER
	Examiner	**Art Unit**	
	KHAWAR IQBAL	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 March 2008</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>10 and 12-14</u> is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>10,12-14</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some *   c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03-27-

08 has been entered.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 10,12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Jean Henry-Labordere (20030013464) and further in view of Frangion et al

(20030229534), Robinson et al (6760580) and Allison (7113781).

Regarding claim 12 Jean Henry-Labordere teaches a system to handle short

messages under phone number portability between multiple telecommunications

networks, where the phone numbers do not permit an unambiguous linkage of the user

to a specific telecommunication network and where several attempts at delivery of the

short messages are possible, and where the parameters or data required for delivery of

the short message are determined during the first attempt at delivery, said system

comprising (figs. 1-3, para. # 0029):

means for determining parameters or data required for the delivery of a short

message from a sending entity to a recipient by determining the relevant home register

HLR for the recipient and then generating a routing inquiry to the relevant HLR (para.

0001-0008,0018, 0021-0034);

the relevant HLR including means for responding to the inquiry by returning

parameters or data for delivery (para. 0003-0008, 0021-0034);

means for performing a first attempt at delivery based on the parameters or data

required for delivery (para. 0002-0008, 0013-0018, 0026-0028);

means for temporarily storing in a short message service center SMSC in the

sending network that is involved in the transaction the short message to be delivered

and the parameters or data required for delivery including the HLR address of the

relevant home register HLR containing the required parameters or data obtained during

the first attempt at delivery (para. 0013-0018, 0021-0034);

storage space reserved to store all or part of the parameters or data relating to the

first attempt at delivery in a short message service center (SMSC) involved in the

transaction, where such storage space is associated with a temporary storage location

housing the short message to be delivered, and where the stored parameters or data

required for delivery are stored for use at least in part in subsequent attempts at delivery

(para. 0013-009, 0021-0034). Jean Henry-Labordere teaches sending short SMS

messages to mobile networks having number portability within the same country that a

computer with SS7 connections is used as an SMSC relay to relay the short messages

sent by an operator A to a subscriber of a network B visiting another network C, the

latter having no roaming agreement with network A, by sending the short SMS message

with the global title GT of the visited MSC to a companion SMSC in a network which

does have a roaming agreement with network C, the computer capable of interrogating

all the HLRs of the country in which the number portability is operated, the computer

having a cache memory for all the mobile subscribers of the country in which the

portability is operated so that the computer will know which HLR to interrogate, without

searching, once the HLR has been found a first time. The invention may consist of a

"Conversion Unit" installed at each operator, which wants to have the MNP feature to

send SMS to all his subscribers (regular or port-in) or to the others. The Conversion

Unit is basically the A-me as the MNP-MSC but does not require a large cache memory.

Send a Forward Short Message Mobile Terminated (SMSMT) to the visited MSC which

will relay to the Destination Address handset. In case of failure, various classical retry

schemes may be used. Jean Henry-Labordere does not specifically teach indetail

means for erasing from the short memory service center SMSC the short message and

said parameters or data required for delivery when the short message is delivered

successfully.

In an analogous art, Frangione et al teaches (sport to Jean Henry-Labordere

teaches para. # 0005 and 0018 and see Background of the Invention of the application)

if the short message was not delivered successfully, performing at least a subsequent

attempt at delivery by retrieving the message and store in the SMSC (para. # 0116-

0118). Applicant acknowledges (Background of the Invention), "This is handled by various procedures that vary in complexity, but that will eventually yield the needed information, such that it is available after all. The sending entity, which is the HLR in the subscription network of the recipient, also sends his calling party address (CgPty address) as the sender's address. However, this is deleted after each delivery attempt of the SM in all currently known procedures. Thus, the SMSC must address the intended HLR again via a so-called MNP-SRF network element for each subsequent retry, even in those cases where the HLR is in the own PLMN. This procedure has been used to-date prior to MNP and continues to be used after MNP essentially unchanged, which leads to the inefficiency described above" (see para. # 3, Background of the Invention). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Jean Henry-Labordere by specifically adding feature if the short message was not delivered successfully, performing at least a subsequent attempt at delivery by retrieving the message and store in the SMSC in order to enhance control the delivering procedure to save the memory space as taught by Frangione et al. Jean Henry-Labordere and Frangione et al do not specifically teach in detail if the short message is delivered successfully, erasing the short message.

In an analogous art, Robinson et al teaches if the short message is delivered successfully, erasing the short message (col. 8, lines 7-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Jean Henry-Labordere and Frangione et al and Applicant

acknowledges (Background of the Invention) by specifically adding feature if the short

message is delivered successfully and erasing the short message in order to enhance

control the delivering procedure to save the memory space as taught by Robinson et al.

Jean Henry-Labordere and Frangione et al do not specifically teach in detail, data being

stored in an additional HLR address field in the SMSC.

In an analogous art, Allison et al teaches data being stored in an additional HLR

address field in the SMSC (col. 10, lines 19-54, col. 11, lines 11-48, col. 12, lines 36-

52). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify the device of Jean Henry-Labordere, Frangione et al

and Robinson et al by specifically adding feature data being stored in an additional HLR

address field in the SMSC in order to enhance control the delivering procedure to

stored parameters in response to a change in location of the subscribers as taught by

Allison et al.

Regarding claims 13,14 Jean Henry-Labordere teaches method for handling

short messages under phone number portability between several communications

networks, where the phone numbers do not permit an unambiguous linkage of the user

to a specific telecommunication network, comprising the steps of (figs. 1-3):

determining parameters or data required for the delivery of a short message from a

sending entity to a recipient by determining the relevant home register HLR for the

recipient and then generating a routing inquiry to the relevant HLR (para. 0001-0008,

0021-0034);

the relevant HLR responding to the inquiry by returning parameters or data for

delivery (para. 0001-0008, 0021-0034);

performing a first attempt at delivery based on the parameters or data required

for delivery (para. 0001-0008, 0021-0034);

temporarily storing in the short message service center SMSC involved in the

transaction the short message to be delivered and the parameters or data required for

delivery including the HLR address of the relevant home register HLR containing the

required parameters or data obtained during the first attempt at delivery (para. 0001-

0008, 0021-0034). Jean Henry-Labordere teaches sending short SMS messages to

mobile networks having number portability within the same country that a computer with

SS7 connections is used as an SMSC relay to relay the short messages sent by an

operator A to a subscriber of a network B visiting another network C, the latter having

no roaming agreement with network A, by sending the short SMS message with the

global title GT of the visited MSC to a companion SMSC in a network which does have

a roaming agreement with network C, the computer capable of interrogating all the

HLRs of the country in which the number portability is operated, the computer having a

cache memory for all the mobile subscribers of the country in which the portability is

operated so that the computer will know which HLR to interrogate, without searching,

once the HLR has been found a first time. The invention may consist of a "Conversion

Unit" installed at each operator, which wants to have the MNP feature to send SMS to

all his subscribers (regular or port-in) or to the others. The Conversion Unit is basically

the A-me as the MNP-MSC but does not require a large cache memory. Send a

Forward Short Message Mobile Terminated (SMSMT) to the visited MSC which will

relay to the Destination Address handset. In case of failure, various classical retry

schemes may be used. Jean Henry-Labordere does not specifically teach means for

erasing from the short memory service center SMSC the short message and said

parameters or data required for delivery when the short message is delivered

successfully.

In an analogous art, Frangione et al teaches (sport to Jean Henry-

Labordere teaches para. # 0018 and see Background of the Invention) if the short

message was not delivered successfully, performing at least a subsequent attempt at

delivery by retrieving the message and store in the SMSC (para. # 0116-0118).

Applicant acknowledges (Background of the Invention), "This is handled by various

procedures that vary in complexity, but that will eventually yield the needed information,

such that it is available after all. The sending entity, which is the HLR in the

subscription network of the recipient, also sends his calling party address (CgPty

address) as the sender's address. However, this is deleted after each delivery attempt

of the SM in all currently known procedures. Thus, the SMSC must address the

intended HLR again via a so-called MNP-SRF network element for each subsequent

retry, even in those cases where the HLR is in the own PLMN. This procedure has

been used to-date prior to MNP and continues to be used after MNP essentially

unchanged, which leads to the inefficiency described above" (see para. # 3,

Background of the Invention). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify the device of Jean Henry-

Labordere by specifically adding feature if the short message was not delivered

successfully, performing at least a subsequent attempt at delivery by retrieving the

message and store in the SMSC in order to enhance control the delivering procedure to

save the memory space as taught by Frangione et al. Jean Henry-Labordere and

Frangione et al do not specifically teach if the short message is delivered successfully,

erasing the short message.

In an analogous art, Robinson et al teaches if the short message is delivered

successfully, erasing the short message (col. 8, lines 7-16). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to

modify the device of Jean Henry-Labordere and Frangione et al and (Applicant

acknowledges (Background of the Invention)) by specifically adding feature if the short

message is delivered successfully and erasing the short message in order to enhance

control the delivering procedure to save the memory space as taught by Robinson et

al. Jean Henry-Labordere and Frangione et al do not specifically teach in detail, data

being stored in an additional HLR address field in the SMSC.

In an analogous art, Allison et al teaches data being stored in an additional HLR

address field in the SMSC (col. 10, lines 19-54, col. 11, lines 11-48, col. 12, lines 36-

52). Therefore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to modify the device of Jean Henry-Labordere, Frangione et al

and Robinson et al by specifically adding feature data being stored in an additional HLR

address field in the SMSC in order to enhance control the delivering procedure to

stored parameters in response to a change in location of the subscribers as taught by

Allison et al.

Regarding claim 10 Jean Henry-Labordere teaches characterized by having the

query of HLR use an SS7 channel (para. 0013, 0021-0034).

Response to Arguments

Applicant's arguments filed in the 03-27-08 Remarks have been fully considered but

they are not persuasive. Examiner has thoroughly reviewed applicant's arguments but

firmly believes the cited reference to reasonably and properly meet the claimed

limitations. Applicant's argument was that "There is no teaching in Henry-Labordere

that when the SMS cannot be delivered, the SMS is stored together with the delivery

parameters in the storage space of the SMSC for use in subsequent attempts at

delivery". Examiner respectfully disagrees with this argument. Jean Henry-Labordere

teaches short messages sending to mobile networks with mobile number portability

and location requests are sent sequentially to a plurality of HLRs. See para. # 0022-

0024. If the Destination Address is not located in the cache memory, it will

communicate with the HLRs _in order. The SMS-MT is then sent in classical manner

using MAP Forward Short Message MT and **a new entry is made in the cache**

memory (4) which is updated see para. # 0021-0024. If it finds the destination

address in the cache, but the HLR responds "unknown subscriber" it means that the

subscriber has ported-out its number. In overall, it is measured that a full search of 15

HLRs takes about 12 sec. Due to the response time of the HLRs and the SS7

transmission delay **(Retry)** (para. # 0024-0028). Henry-Labordere further states "The

MNP-SMSC acts as relay or a "SMS proxy" between the networks A and C. A can

send the SMS to the MNP-SMSC because the MNP-SMSC it is hosted in the network

B which has roaming agreements with A. The MNP-SMSC interrogates (1) the HLR of

B to obtain the GT of the visited MSC. It then runs its routing algorithm which tells if

the MSC can be reached indirectly (in network C with roaming agreements with B) or in

an other. In the later case, the MNP-SMSC sends the message (2) to a "companion

MNP-SMSC" hosted in a network which has roaming agreements with C, the data

including the GT of the visited MSC. The companion MNP-SMSC will just send (3) the

ordinary MAP FORWARD_SHORT_MESSAGE_MT to the destination handset through

the visited MSC, it has roaming agreements with" (see para # 0034-0039). Henry-

Labordere also states that send a Forward Short Message Mobile Terminated

(SMSMT) to the visited MSC which will relay to the Destination Address handset. **In**

case of failure, various classical retry schemes may be used (para. # 0005).

Frangion et al teaches the SMSC 140 may store the SMS message and retry

sending the message at certain predetermined intervals.

It is clearly teaches that the SMS is stored together with the delivery parameters

in the storage space of the SMSC.

Conclusion

3.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is (571)272-7909. The examiner can normally be reached on 9 am to 6.30 pm Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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